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WISDOM IS COMMON SENSE TO AN UNCOMMON DEGREE

THE REA LINEMAN

RURAL ELECTRIFICATION ADMINISTRATION

U. S. DEPARTMENT OF AGRICULTURE

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April, 1943

St. Louis, Mo.

FIVE COWS LESS FOR MILK PRODUCTION

That was the sad news from the Agra-Lite Cooperative, Benson, Minn., as reported in the "REA News Generator." Here was the "Generator's" story:

"One member lost five good dairy cows recently. The cows were killed by electricity which fed through the suction line of the milking machine, from the motor. The suction line is attached to steel stanchions. Cows standing back in the gutter, and well grounded because of the moisture there, received a shock of fatal intensity.

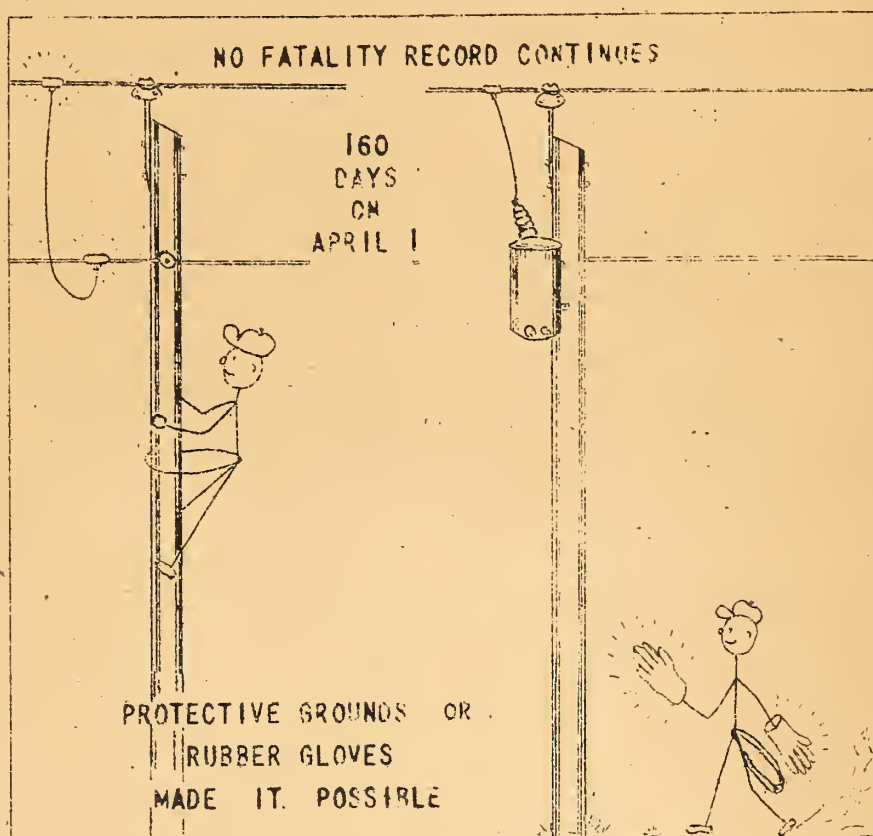
"This accident could not have happened if the motor frame on the milking machine and metal suction lines had been properly grounded, or if there had been a rubber hose coupling in the suction line between the pump unit and the stanchions. Those safety measures should always be taken when a milking machine is installed.

"Also electric motor frames should be grounded to insure against shock in cases of failure of the insulation of the motor windings.

Insurance Against Shock

"Good grounds and proper fusing are insurance against electric shock or fire. Comply with the requirements of the National Electrical Code whenever and wherever electric wiring is installed. Have it inspected. Check all motor in-

(Turn to COWS, page 2)



THEY LISTENED -- AND LEARNED

"We're looking forward to a year with fewer accidents, IF we not only listen to but practice the instructions of State Safety Instructor L. A. Ehmsen."

That's what the manager and maintenance crew of Salt River Electric Cooperative wrote "The Lineman" after a March 22 safety meeting of their group with employees of the Elizabethtown Rural Electric Cooperative, in the Bardstown, Kentucky, offices of the Salt River Co-op.

Ehmsen spent the morning discussing installation of grounds on lines for safety, use of rubber gloves and their care; and care and maintenance of hot sticks. He devoted an hour to artificial respiration, with each man taking part.

In the afternoon the group — the Salt River maintenance crew, with Lineman Walter Short and Ground Helper Sam C. Payne of Elizabethtown — were "put through their paces" by Ehmsen. He had them de-energize and ground a tap, install a lightning arrestor, and trim some trees. Then he pointed out mistakes they had made. All agreed they had spent a profitable day.

Published Monthly in the interest of Safety
for Employees of REA Systems

David A. Fleming, Editor

MILLIONS CAN BE SAVED

A total war has driven home to the average citizen the appalling cost of accidents in dollars and in loss of manpower, material and productive capacity.

Faced by critical shortages of manpower and material, we must recognize our patriotic duty to reduce these losses to a minimum.

Every man, woman and child, whether at home, at work or at play, is affected by, and should be interested in the safety movement. Yet, Mr. Average Citizen has been slow to understand that wastage through accidents is inexcusable and cannot be tolerated. He shows very little interest in accident prevention. He may recognize the need for safe practices on the job, but neglects them off the job.

The task of educating to safety the nation's 135,000,000 people is being attempted with very little paid help and organized direction. The National Safety Council, various state and local organizations, industry, Red Cross and others are doing an excellent job, considering everything. But they are handicapped by lack of interest, from officialdom down through the individual.

The man who becomes seriously or permanently injured is interested in accident prevention — after the accident. So is his family. For, if the injury occurs at work, although the victim gets partial compensation, he must drastically reduce his standard of living. If it occurs off the job, there is no compensation. He and his family are thrown upon past savings or charity for their subsistence.

The nation, officialdom, and the man in the street and on the farm must weigh the social cost of accidents. Millions must ultimately be paid to keep alive the families of accident victims.

We can save those millions — by a nation-wide, organized effort to stop accidents before they happen.

V - V - V

The report in connection with accident number 7 on page 3 states "Following the accident all climbing equipment was given a thorough check and certain leather parts were replaced and repaired." Why not assume the accident happened on YOUR SYSTEM and inspect your climbing equipment TODAY?

V - V - V

Contact your local Red Cross chapter or National Headquarters for information about Accident Prevention, Water Safety and First Aid courses. The dates are:

May 28 — June 7 — Camp Rio, Vista, Kerrville, Texas

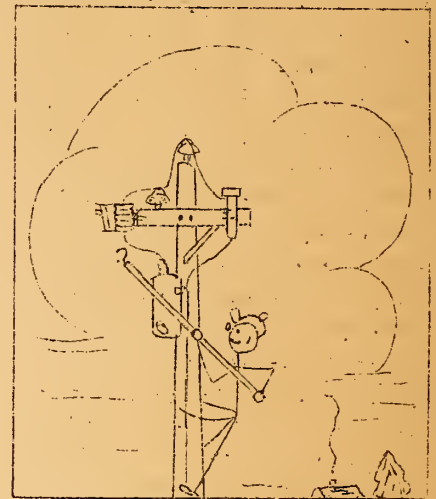
June 9 — 19 — Rockaway Beach, Lake Taneycomo, Mo.,
and Excelsior, Minn.

August 18 — 28 — Woodward, Iowa, and Oconomowoc, Wisconsin

TRANSFORMER HAZARDS

When hanging a self protected transformer the most hazardous operation is installing the rigging to raise the transformer. Use your transformer hoist and KEEP AWAY FROM THE PHASE WIRE!

When installing the cross-arm about a foot from the top of the pole for the conventional type the phase wire MUST BE REMOVED TO A REMOTE POSITION WITH LIVE LINE TOOLS. REA has a standard for mounting the cut-out and lightning arrester on the transformer which eliminates the cross-arm. The new equipment for this standard is now available from some manufacturers. Write to REA for the standards.



COWS (Cont'd.)

stallations, see that they are safely grounded. Electricity is safe when handled right." reminds the Agra-Lite Co-op.

The unlucky member said, "We had an electrician install the device needed to safeguard against a recurrence of the accident and are continuing to use our milking machine with full confidence." He took precautions — but a little too late.

All linemen will do a good turn if, when they hear of an installation, they drop the hint, "Better get it inspected, mister."

THEY COULD HAVE BEEN

AVOIDED

1. A superintendent went out to restore service on a 7200-volt single-phase line after the fuse had blown on a three-shot sectionalizing switch. Although he did not have the proper size fuse, he replaced one with a hot stick. The fuse blew out. He does not know just what happened then but does know he has severe BURNS ON ONE FINGER OF EACH HAND and on the bottom of one foot.

2. A truck stuck in a snowdrift. A lineman stood on the rear bumper for added traction as the truck was rocked back and forth. As the truck was reversing the lineman stepped off and bruised a foot between the bumper and snowbank.

3. Two linemen were lifting the end of a pole from the truck. The pole got away from them and fell, bruising one man's foot.

4. A lineman was attempting to correct connections of metering equipment. He climbed down to check the diagrams and when he climbed up again he grasped a dangling hot jumper. He spent the next three days in a hospital with severely BURNED FINGERS.

5. A man was helping to saw a tree. When the tree fell the saw kicked out and the man was knocked down. He suffered a scalp wound.

6. A line foreman wrenched his back when a box of bolts he was lifting came apart, throwing him off balance.

7. A lineman making secondary connections fell from a pole when his safety broke. Although no bruises or broken bones were revealed he suffered pain in groin and had to take time off. Investigation indicated the leather as dry and none too good. A gaff mark was discovered on one edge of the

AT YOUR SAFETY MEETING

Things to Discuss

Case No. 43-4

Let a piece of mechanical equipment do your job for you whenever you can.

That's the lesson that comes home forcefully from a series of accidents of similar nature which occurred during the past three months. These were the accidents:

Lifting a pole from the ground to a trailer, a lineman pulled and strained the muscles of his back.

While trimming trees, a lineman's helper suffered torn ligaments and a strained side.

A lineman sprained his back when throwing a hot stick to another lineman on the pole.

While unloading a frost-covered transformer from the truck, a lineman momentarily lost his grip, the transformer slipped and fell on his toe.



Loading poles on a truck, a groundman, on the job only 11 days, suffered a leg fracture. Before one of the poles could be secured, it toppled on his leg.

A falling iron beam smashed one of a lineman's toes.

All these mishaps were caused by a lack of mechanical equipment. Each presents its own problem -- no one safety measure applies to them all. BUT -- each illustrates dramatically the frequency with which strains and broken bones occur when line crews try to do the job with hands alone.

Moving heavy loads by hand is tricky business -- it's hard to measure the exact weight you can handle successfully without straining a muscle or breaking your grip. But REA linemen know that skids, hoists, hand lines and prys can help them handle heavy objects. If these aids are not available, they are ingenious enough to devise their own mechanical helpers.

Give it a little thought -- it'll pay you in sound health and days saved on the job.

V - V - V

Have all your bookkeepers been instructed to include the two items "Number of Accidents This Month" and "Total Hours Worked" in the yellow sheet of the Monthly Operating Report?

V - V - V

THANKS!

Thanks for the letters informing us of the men on your systems who have completed the year 1942 without a lost-time accident. We're proud that the list is too lengthy to publish.

V - V - V

strap at the break.

8. While standing on a ladder, a lineman attempted to sag a service wire to a brick house. The knob pulled loose and the lineman was jerked from the ladder. Although he landed on his feet, he incurred a cracked vertebra, a cracked knee and a broken foot.

V - V - V

THE BURNS WERE

ON THE HANDS!

AROUND THE STATES WITH SAFETY AND JOB TRAINING

Arkansas and Virginia have joined the states carrying out the Safety and Job Training Program. Temporary committees are busy working and planning their activities.

North Carolina systems are presenting resolutions to their Board of Directors regarding their participation in the Program. Minutes of the Board Meetings indicate a favorable reaction.

Mich. Supervisor Lawrence C. Meyer has started his first round of visits. He writes:

The college has been treating me fine and from all appearances we will be able to put over a real safety program. Several members of the Michigan Committee are coming for a meeting with the State Board of Control for Vocational Education, Mr. Tenny of the Extension Department, Mr. Wyant of the Agricultural Engineering Department and myself, to get this program organized and under way."

We know the Cooperatives in Michigan will like Mr. Meyer and believe the Committee has made an excellent choice.

Dean Horsewood, the new Supervisor in Ohio, has requested safety publicity and information. We will be pleased to answer any questions or comments he or the linemen would like to make regarding safe practices.

Illinois line foremen discussed design, construction and operation of overhead lines at a two-day meeting in St. Louis last month. The meeting was very successful. The foremen and members of the REA staff discussed their problems openly and frankly. It was an educa-

ACCIDENT FREQUENCY ON REA SYSTEMS - 3RD MONTH

(Disabling injuries per 10,000
miles of energized lines)

REGION	THIS YEAR	LAST YEAR	% INCR. OR DECR.
I	0.3	0.9	-67
II	0.9	0.0	-xx
III	0.4	0.8	-50
IV	0.4	0.0	-xx
V	0.0	0.6	-xx
VI	0.0	0.0	00
VII	1.1	0.0	-xx
VIII	0.5	0.5	00
IX	0.0	2.2	-xx
X	0.3	1.7	-82
U.S.	0.4	0.6	-33

tion for both groups.

L. A. (Slim) Ehmsen, Kentucky Supervisor, sent in a complete file of the operations Memoranda in Section 22 with comments on each. He also sent in three pages of general comments in regard to the Safety Program, plus a number of pictures showing what he considers as safe and unsafe installation. Slim says, "the comments were taken from safety meetings and methods held in field tryouts." We hope to reproduce his comments for distribution to the rest of the supervisors.

Some of the Oklahoma Cooperatives are continuing District Safety Meetings until the Safety and Job Training Supervisor is selected. Co-op personnel from Cordell, Belinger, Tipton, Walters and Hollis met at Tipton for their bi-monthly meeting. Ed Hutelmyer, operations representative, writes: "The program was well planned and executed. The group was very sincere and appeared to be trying to get the most out of it. These regional meetings have done a lot of good, not only in making the personnel safety conscious but in teach-

CONNECT SUBSTATION LEAD AT THE TOP

Connecting the substation lead to the bottom of an open type cutout presents a hazard not generally recognized by the average lineman, the engineer of a large manufacturing concern tells us. Parts of the fuse holder and the bottom of the cutout become energized and there is danger that a lineman may receive a severe burn from an arc, should the fuse be closed on a short circuit. Fuses are designed for the substation lead to enter at the top so that should the fuse blow, the tube will help extinguish the arc.

Experiments conducted by this concern show that when the substation lead is connected to bottom of the cutout an arc will jump to a grounded plate three or four feet below. Furthermore, this arc will be maintained. If the lead is connected to the top of the cutout the arc will only jump about six inches.

What did you do today

TOWARD WINNING THE WAR?

ing them various ways to do their job better."

The Mississippi Committee is still looking for a supervisor. Interested parties should communicate with J. M. Mahaffey Secretary-Treasurer, P. O. Box 216, Clinton, Miss.

The Texas Program has arranged a meeting to present the President's Medal to a superintendent on one of the systems. From all indications this will be a big affair.

How about some news from Iowa and Wisconsin?
